

IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application. Since the Amendment After Final filed March 8, 2004 was not entered, the instant claim changes are based on the claims submitted September 9, 2003.

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The semiconductor device as set forth in claim 19,
wherein:

said spacer is an adhesive tape or an adhesive agent.

6. (Previously Presented) The semiconductor device as set forth in claim 16,
wherein:

said flexible substrate is made of polyimide series resin, and is formed in thickness
of not more than 40 μm .

7. (Withdrawn) A liquid crystal module, comprising:

said semiconductor device of claim [[1]] 16;

a liquid crystal panel as a member to be connected; and

a printed wiring substrate,

wherein one of said external connection terminals of said semiconductor device is connected to said liquid crystal panel, while an other of said external connection terminals is connected to said printed wiring substrate.

8. (Withdrawn) The liquid crystal module as set forth in claim 7, wherein:
said flexible substrate is provided so as to have a cross section of substantially S-shape in an inside of a module main body.

9. (Withdrawn) The liquid crystal module as set forth in claim 8, further comprising:
lighting means provided between said liquid crystal panel and said flexible substrate,
wherein said semiconductor element mounted on said flexible substrate is provided so as to face inside of said module main body.

10. (Withdrawn) A liquid crystal module, comprising:
a semiconductor device, a liquid crystal panel, and a printed wiring substrate which are mounted in flat,
wherein said semiconductor device includes:
a film-like flexible substrate having formed thereon a wiring pattern;
external connection terminals formed at both end portions of said flexible substrate; and
a semiconductor element mounted on a surface side of said flexible substrate,
wherein a folded part, which is folded down in U-shape to a back surface side of said flexible substrate, is formed in a fixed state at least at one end portion of said flexible substrate.

11. (Withdrawn) A method of manufacturing a liquid crystal module which comprises i) a semiconductor device, ii) a liquid crystal panel as a member to be connected and iii) a printed wiring substrate, wherein i) said semiconductor device includes a film-like flexible substrate having formed thereon a wiring pattern, external connection terminals formed at both end portions of said flexible substrate, and a semiconductor element mounted on a surface side of said flexible substrate, and a folded part, which is folded down in U-shape to a back surface side of said flexible substrate, is formed in a fixed state at least at one end portion of said flexible substrate; and one of said external connection terminals is connected to said liquid crystal panel, while an other of said external connection terminals is connected to said printed wiring substrate, said method comprising the steps of:

(a) after bonding a spacer to a back surface of the end portion of said film-like flexible substrate having the wiring pattern formed on the surface thereof, folding the end portion down to the back surface side of said flexible substrate in substantially U-shape and fixing a resulting folded end portion to the spacer; and

(b) after said step (a), connecting the external connection terminals of said flexible substrate to said liquid crystal panel or said printed wiring substrate.

12. (Withdrawn) A method of manufacturing a liquid crystal module which comprises i) a semiconductor device, ii) a liquid crystal panel as a member to be connected and iii) a printed wiring substrate, wherein i) said semiconductor device includes a film-like flexible substrate having formed thereon a wiring pattern, external connection terminals formed at both end portions of said flexible substrate, and a semiconductor element mounted on a surface side of said flexible substrate, and a folded part, which is folded down in U-shape to a back surface side of said flexible substrate, is formed in a fixed state at least at one end portion of said flexible substrate; and one of said external connection terminals is connected to said liquid crystal panel, while an other

of said external connection terminals is connected to said printed wiring substrate, said method comprising the steps of:

i) after slightly folding down an end portion of the film-like flexible substrate having formed thereon the wiring pattern to the back surface side, connecting external connection terminals of said flexible substrate to said liquid crystal panel or said printed wiring substrate; and

ii) after said step i) fixing the end portion of said flexible substrate to a spacer by folding down the end portion in substantially U-shape to the back surface side after bonding the spacer to the back surface of the end portion of said flexible substrate.

13. (Cancelled)

14. (Withdrawn) A liquid crystal module, comprising:

a semiconductor device; and

a liquid crystal panel as a member to be connected,

wherein said semiconductor device includes:

a wiring pattern formed on a surface side of a film-like flexible substrate;

a semiconductor element and external connection terminals which are connected to the wiring pattern,

wherein a folded part, which is folded down to a back surface side of said flexible substrate, is formed in a fixed state at least at one end portion of said flexible substrate; and

said external connection terminals are connected to said liquid crystal panel in such a manner that said semiconductor element faces said liquid crystal panel.

15. (Withdrawn) An electronic equipment, comprising a liquid crystal module which includes:

a semiconductor device;

a liquid crystal panel as a member to be connected; and
a printed wiring substrate,
wherein said semiconductor device includes:
a film-like flexible substrate having formed thereon a wiring pattern;
external connection terminals formed at both end portions of said flexible
substrate; and
a semiconductor element mounted on a surface side of said flexible substrate,
wherein a folded part, which is folded down to a back surface side of said flexible
substrate, is formed in a fixed state at least at one end portion of said flexible substrate;
and
one of said external connection terminals of said semiconductor device is
connected to said liquid crystal panel, while an other of said external connection
terminals is connected to said printed wiring substrate.

16. (Currently Amended) A semiconductor device, comprising:
a film-like flexible substrate having a wiring pattern formed on a front surface
thereof;
external connection terminals formed at both end portions of said flexible
substrate; and
a semiconductor element mounted on the front surface of said flexible substrate,
wherein at least one end portion of said flexible substrate is folded almost in
contact with a back surface of said flexible substrate, so that a flat portion is formed at
said at least one end portion, the flat portion having the external connection terminals.

17. (Currently Amended) A semiconductor device, comprising:
a film-like flexible substrate having a wiring pattern formed on a front surface
thereof;

external connection terminals formed at both end portions of said flexible substrate; and

a semiconductor element mounted on the front surface of said flexible substrate, wherein at least one end portion of said flexible substrate is ~~formed~~ folded almost in contact with a back surface of said flexible substrate, so that a flat portion is formed at said at least one end portion, and the flat portion has the external connection terminals ~~which in such a manner that said external connection terminals of the folded end portions~~ are connectible to a member to be connected provided over the front surface of said flexible substrate.

18. (Currently Amended) A semiconductor device, comprising:
a film-like flexible substrate having a wiring pattern formed on a front surface thereof;

external connection terminals formed at both end portions of said flexible substrate; and

a semiconductor element mounted on the front surface of said flexible substrate, wherein both end portions of said flexible ~~substrates~~ substrate are folded almost in contact with a back surface of said flexible substrate, so that flat portions are formed at the respective end portions, each of the flat portions having the external connection terminals, and the external connection terminals at one of the folded end portions ~~flat portion~~ are connected to a member to be connected provided on the back surface of below said flexible substrate, while ~~and that the external connection terminals at the other folded end~~ flat portion are connected to a printed wiring substrate provided on the back surface of below said flexible substrate.

19. (Currently amended) The semiconductor device as set forth in claim 16, further comprising:

a spacer for fixing the ~~folded end~~ flat portion to the back surface of said flexible substrate.

20. (Currently Amended) A semiconductor device, comprising:
a wiring pattern formed on a front surface of a film-like flexible substrate; and
a semiconductor element and external connection terminals which are connected to the wiring pattern,

wherein at least one end portion of said flexible substrate ~~has the external connection terminals, and is folded toward a back surface of said flexible substrate and almost in contact with said back surface~~ of said flexible substrate, so that a flat portion is formed at said at least one end portion, the flat portion having the external connection terminals.

21. (New) A semiconductor device comprising:
a wiring pattern formed on a film-like flexible substrate;
a semiconductor element and an external connection terminal being provided on a front surface of the film-like flexible substrate and electrically connected by the wiring pattern;

the external connection terminal being provided at a end portion of the film-like flexible substrate, the end portion of the film-like flexible substrate at which the external connection terminal is situated being folded back toward a back surface of the film-like flexible substrate and almost in contact with the back surface so that the external connection terminal has an orientation for contact with an electrode of a liquid crystal display substrate.

22. (New) The semiconductor device as set forth in claim 16, wherein in the end portion, only the flat portion has the external connection terminals.